# Section 7. Unmanned Free Balloons

## 9-7-1. APPLICATION

**Shapes of 11 Million Cubic Feet Balloon at Various Altitudes**

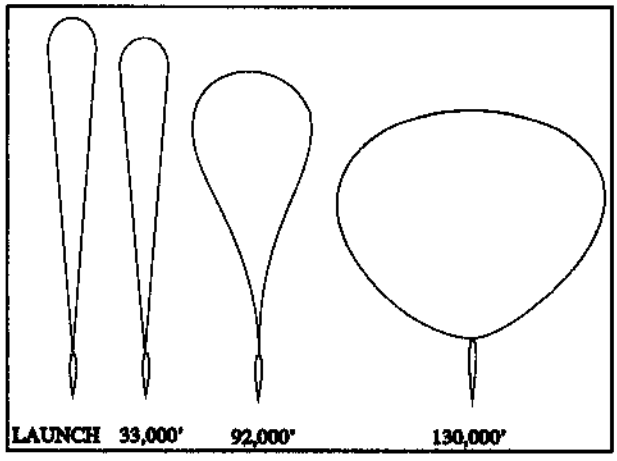


*FIG 9-7-1*

Apply the following procedures, as appropriate, when unmanned free balloons are within airspace for which you have control jurisdiction:

*NOTE-*
*These procedures apply to unmanned free balloons that carry payloads as described in 14 CFR Section 101.1(a)(4). Payloads may weigh several hundred pounds and the physical shape of the balloons change at various altitudes/flight levels. (See FIG 9-7-1.) Balloon and payload ascend at an average rate of 400 feet a minute. Over the descent area, the payload is normally released from the balloon and descends by parachute at a minimum rate of 1,000 feet a minute. The balloon is normally deflated automatically when the payload is released. The operator is required to advise ATC 1 hour in advance of descent in accordance with 14 CFR Section 101.39.*

**a.** Post the balloon flight on flight progress strips along the planned trajectory and revise routing as tracking/position reports require.

*NOTE-*
*The prelaunch notice information should be posted on flight progress strips for planning and operational purposes.*

**b.** Radar flight follow balloons to the extent that equipment capabilities permit. If radar flight following is not possible, tracking should be attempted by communication with the "chase plane," telephone contact with the operator, pilot, or ground observation reports.

*NOTE-*
*Some operators have equipped their balloons with transponder beacons in addition to a radar reflection device or material required by 14 CFR Section 101.35, but at cruise altitude, the balloon's communications equipment and transponder, if so equipped, are operated intermittently to conserve battery energy.*

**c.** With pilot concurrence, provide separation between aircraft and balloons when you are satisfied that the balloon information is sufficiently reliable to provide the service. Do not attempt to separate aircraft from the balloon by using vertical separation unless you have accurate balloon altitude information.

**d.** Provide traffic advisories to all affected aircraft during initial contact specifying the balloon's known or estimated position, direction of movement, and altitude as "unknown" or "reported," as appropriate.

*NOTE-*
*Unless ATC requires otherwise, operators of unmanned free balloons are required to monitor the course of the balloon and record its position at least every two hours. As required in 14 CFR Section 101.39a, balloon position reports are not forwarded by the operator unless requested by ATC.*

***PHRASEOLOGY-***
*UNMANNED FREE BALLOON OVER (name of location),*

*or*

*ESTIMATED OVER (name of location), MOVING (direction of movement).*

*LAST REPORTED ALTITUDE AT (altitude as reported by the operator or determined from pilot report),*

*or*

*ALTITUDE UNKNOWN.*

**e.** To transfer flight following responsibility of balloons between facilities or between controllers, forward the following information when available:

***REFERENCE-***
*14 CFR Section 101.37, Notice Requirements.*
*14 CFR Section 101.39, Balloon Position Reports.*

**1.** Identification and type; e.g., Flight 804 Balloon.

**2.** Last known position and altitude.

**3.** General direction of movement and speed.

**4.** ETA over facility boundary, sector boundary, or other point if believed to be reasonably accurate.

**5.** Other pertinent information.

**6.** If in radar contact, physically point out the target to the receiving controller.

**7.** The name and the telephone number of the location where tracking is being accomplished.

*REFERENCE-*
*FAAO 7110.65, Derelict Balloons, Para 9-7-2.*

## 9-7-2. DERELICT BALLOONS

Balloons become derelict when a moored balloon slips its mooring and becomes a hazard to air navigation or when an unmanned free balloon flight cannot be terminated as planned. When this occurs:

**a.** In the case of a moored balloon which has slipped its moorings, issue traffic advisories.

**b.** In the case of an unmanned free balloon, flight follow the balloon and, to the extent possible, provide aircraft under your control separation from the balloon.

**c.** Forward balloon position information received from pilot reports or derived from radar returns to your supervisor for further dissemination.

**d.** If radar contact with the balloon is lost, broadcast an advisory to all aircraft operating in the airspace affected by the derelict balloon at 10-minute intervals continuing until the derelict balloon is no longer a factor.

***PHRASEOLOGY-***
*ADVISORY TO ALL AIRCRAFT.*

*DERELICT BALLOON REPORTED IN THE VICINITY OF (location),*

*or*

*ESTIMATED IN VICINITY OF (location),*

*or*

*REPORTED OVER (location),*

*or*

*RADAR REPORTED OVER (location).*

*LAST REPORTED ALTITUDE/FLIGHT LEVEL AT (altitude/flight level as reported by operator or pilot report),*

*or*

*ALTITUDE/FLIGHT LEVEL UNKNOWN.*

**e.** Transfer flight following responsibility as outlined in para 9-7-1, Application, subpara e.

*REFERENCE-*
*FAAO 7210.3, Derelict Balloons/Objects, Para 18-6-2.* ■